Densities of Freshwater Fishes (Non-Atlantic Salmon), Restigouche River System, New Brunswick, 1979–81

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Rapport statistique canadien des
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Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, Ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

Le titre exact paraît au haut du résumé de chaque rapport.

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ABSTRACT

Pickard, P.R. and J.L. Peppar. 1984. Densities of freshwater fishes (Non-Atlantic salmon), Restigouche River system, New Brunswick, 1979-81. Can. Data Rep. Fish. Aquat. Sci. No. 434. v + 17 p.

Electroseining operations were conducted throughout the freshwater reaches of the Restigouche River system, New Brunswick, to determine population densities of the fish species present. Though the main emphasis of these operations was placed on deriving juvenile Atlantic salmon population estimates, data were also collected on the other species present. This report presents the calculated densities obtained from these operations over the period 1979-81, for all species other than Atlantic salmon, and includes data on areas sampled, average depths and water temperatures of the individual sites sampled.

Key words: Restigouche River, electroseining, population density, non-salmon species, area sampled, water depth, water temperature.

RÉSUMÉ

Pickard, P.R. and J.L. Peppar. 1984. Densities of freshwater fishes (Non-Atlantic salmon), Restigouche River system, New Brunswick, 1979-81. Can. Data Rep. Fish. Aquat. Sci. No. 434. v + 17 p.

Des opérations d'électrosennage ont été menées dans les affluents d'eau douce du réseau de la rivière Restigouche, au Nouveau-Brunswick, afin de déterminer la densité de population des espèces de poissons présentes. Bien que le principal objectif du programme consistât à évaluer la densité de population du jeune saumon atlantique, ces activités ont également rendu possible la collecte de données sur d'autres espèces. Le présent rapport contient le calcul des densités pour tous les poissons autres que le saumon atlantique, obtenues à l'aide des échantillonnages effectués de 1979 à 1981, ainsi que les données sur les zones échantillonnées et la profondeur moyenne et la température de l'eau des lieux étudiés.

INTRODUCTION

Electroseining operations, to determine population densities of fish species present, were conducted yearly throughout the freshwater reaches of the Restigouche River system, New Brunswick, over the period 1979-81. Operations each year concentrated on the repetition of sites sampled in previous years, so that consecutive-year comparisons could be drawn. The main emphasis of these operations was placed on deriving juvenile Atlantic salmon population estimates; however, data were also collected on the other species present.

Calculated densities (numbers/83.6 m^2 or /100 m^2) of juvenile Atlantic salmon for all sites sampled during 1972-81 by the electroseining operations have been presented (Peppar and Pickard 1979 and Pickard and Peppar 1984). This report summarizes calculated densities obtained for all other fish species captured during 1979-81. Data obtained for the period 1972-78 have been presented (Pickard and Peppar 1979). Miscellaneous data (areas sampled, average depths and water temperatures) collected during the operations are also presented.

SCOPE OF OPERATIONS

The electroseining operations were conducted on a number of selected streams throughout the Restigouche River system (Fig.). Most of these streams were inaccessible for much of their length; thus, sampling sites had to be selected in areas of reasonable access by standard and/or four-wheel-drive vehicles.

METHODS AND PRESENTATION OF DATA

All methods employed in the actual electroseining operations and used in deriving the population estimates have been presented (Pickard and Peppar 1984). Miscellaneous data collected from the operations and summarized in the tables to follow include: areas of sites sampled (total enclosed area/site sampled), average depths of sites (average depth of each site, based on a minimum of usually nine measurements) and water temperatures of sites (taken within each site, just prior to seining operations). These data are summarized for all individual sites by year, over the three years of sampling.

The calculated densities of all species obtained for the individual sites sampled each year are summarized. These species include:

Designation in table	Common name	Scientific name
Lamprey	Sea lamprey	Petromyzon marinus
Eel	American eel	Anguilla rostrata
Trout	Brook trout	Salvelinus fontinalis
Dace	Blacknose dace	Rhinichthys atratulus
Chub	Lake chub	Couesius plumbeus
Shiner	Common shiner	Notropis cornutus
Sucker	White sucker	Catostomus commersoni
Stickleback	Threespine stickleback	Gasterosteus aculeatus
	Ninespine stickleback	Pungitius pungitius
Sculpin	Slimy sculpin	Cottus cognatus

The preceding list includes the species or "species-groups," other than Atlantic salmon, most often represented in the electroseining catches. Species named represent the most commonly captured (or in some cases, exclusively captured) representative of each of these species or "species-groups." Common and scientific names given are those recommended by the American Fisheries Society (1970).

RESULTS

The streams and corresponding numbers of sites where electroseining operations were conducted are summarized (Table 1); the table also indicates total area sampled and numbers of each species or "species-group" captured each year.

Calculated densities of species obtained for each stream and individual site sampled are presented (Tables 2-10). Miscellaneous data are summarized for each site and year (Tables 11-13).

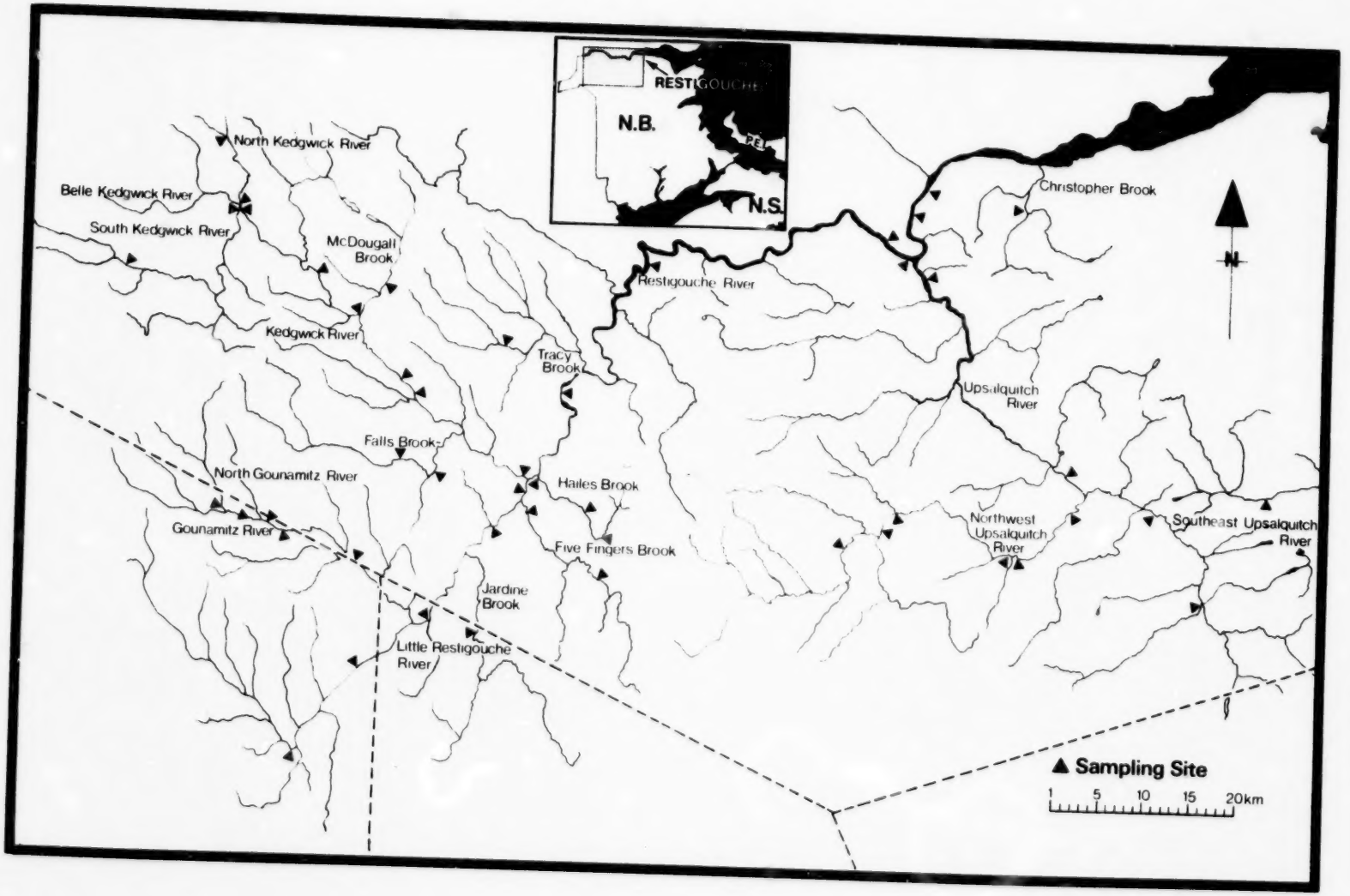

FIG. Restigouche River system, showing the location of electroseining sampling sites (1972-81).

TABLE 1. Streams and corresponding numbers of sites on the Restigouche River system where electroseining operations were conducted, 1979-81.

River or stream	Numbers of sites sampled 1979	1980	1981
Main Restigouche River	6	6	6
Upsalquitch River	9	9	10
Kedgwick River	5	5	5
Belle Kedgwick River	1	1	1
North Kedgwick River	2	2	2
South Kedgwick River	2	2	2
Gounamitz River	4	4	4
North Gounamitz River	1	1	1
Five Fingers Brook	2	2	2
Jardine Brook	1	1	1
Little Main Restigouche River	5	5	5
Christopher Brook	1	1	1
Falls Brook	-	-	1
Tracy Brook	1	-	1
Hailes Brook	-	3	3
Totals	40	42	45
Total area sampled (m^2)	14,298	14,625	16,515
Average area per site (m^2)	357	348	367
Total numbers of fish captured:			
Lamprey	0	0	0
Eel	15	39	14
Trout	29	98	383
Dace	580	1,291	715
Chub	0	11	0
Shiner	0	0	0
Sucker	10	20	0
Stickleback	0	3	6
Sculpin	2,386	3,102	3,020

TABLE 2. Calculated densities of lamprey, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m^2 1979	1980	1981
Main Restigouche River	26	<1	<1	<1
	27	<1	<1	<1
	28	<1	<1	<1
	29	<1	<1	<1
	34	<1	<1	<1
	37	<1	<1	<1
Upsalquitch River	A	<1	<1	<1
	B	<1	<1	<1
	1B	<1	<1	<1
	D	<1	<1	<1
	E	<1	<1	<1
	G	<1	<1	<1
	H	<1	<1	<1
	K	<1	<1	<1
	L	<1	<1	<1
	P	-	-	<1
Kedgwick River	1	<1	<1	<1
	2	<1	<1	<1
	3	<1	<1	<1
	15	<1	<1	<1
	31	<1	<1	<1
Belle Kedgwick River	6	<1	<1	<1
North Kedgwick River	5	<1	<1	<1
	8	<1	<1	<1
South Kedgwick River	7	<1	<1	<1
	14	<1	<1	<1
Gounamitz River	9	0.0	0.0	0.0
	11	0.0	0.0	0.0
	12	0.0	0.0	0.0
	13	0.0	0.0	0.0
North Gounamitz River	23	0.0	0.0	0.0
Five Fingers Brook	19	<1	<1	<1
	32	<1	<1	<1
Jardine Brook	20	<1	<1	<1
Little Main Restigouche River	21	0.0	0.0	0.0
	22	0.0	0.0	0.0
	30	0.0	0.0	0.0
	35	0.0	0.0	0.0
	36	0.0	0.0	0.0
Christopher Brook	33	0.0	0.0	0.0
Falls Brook	17	-	-	0.0
Tracy Brook	25	0.0	-	0.0
Hailes Brook	38	-	0.0	0.0
	39	-	0.0	0.0
	40	-	0.0	0.0
Overall mean		<1	<1	<1
Total number of estimates		40	42	45

TABLE 3. Calculated densities of American eel, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m^2		
		1979	1980	1981
Main Restigouche River	26	< 1	8.7	< 1
	27	< 1	< 1	< 1
	28	< 1	< 1	< 1
	29	< 1	< 1	< 1
	34	< 1	1.4	< 1
	37	< 1	< 1	< 1
Upsalquitch River	A	< 1	< 1	< 1
	B	< 1	1.2	< 1
	1B	< 1	< 1	< 1
	D	< 1	< 1	< 1
	E	< 1	< 1	< 1
	G	< 1	< 1	< 1
	H	< 1	< 1	< 1
	K	< 1	< 1	< 1
	L	1.4	< 1	1.2
	P	-	-	1
Kedgwick River	1	< 1	< 1	< 1
	2	< 1	< 1	< 1
	3	< 1	< 1	< 1
	15	< 1	< 1	< 1
	31	< 1	< 1	< 1
Belle Kedgwick River	6	< 1	< 1	< 1
North Kedgwick River	5	< 1	< 1	< 1
	8	< 1	< 1	< 1
South Kedgwick River	7	< 1	< 1	< 1
	14	< 1	< 1	< 1
Gounamitz River	9	0.0	0.0	0.0
	11	0.0	0.0	0.0
	12	0.0	0.0	0.0
	13	0.0	0.0	0.0
North Gounamitz River	23	0.0	0.0	0.0
Five Fingers Brook	19	< 1	< 1	< 1
	32	< 1	< 1	< 1
Jardine Brook	20	< 1	< 1	< 1
Little Main Restigouche River	21	< 1	< 1	< 1
	22	< 1	< 1	< 1
	30	< 1	< 1	< 1
	35	< 1	< 1	< 1
	36	< 1	< 1	< 1
Christopher Brook	33	0.0	0.0	0.0
Falls Brook	17	-	-	0.0
Tracy Brook	25	0.0	-	0.0
Hailes Brook	38	-	< 1	< 1
	39	-	2.6	1.4
	40	-	< 1	< 1
Overall mean		< 1	< 1	< 1
Total number of estimates		40	42	45

TABLE 4. Calculated densities of Brook trout, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m² 1979	1980	1981
Main Restigouche River	26	<1	<1	<1
	27	<1	<1	<1
	28	<1	<1	7.2
	29	<1	<1	<1
	34	<1	<1	<1
	37	<1	<1	1.5
Upsalquitch River	A	<1	<1	<1
	B	<1	1.7	<1
	1B	<1	<1	<1
	D	<1	<1	<1
	E	<1	<1	<1
	G	<1	<1	<1
	H	<1	<1	<1
	K	1.2	<1	<1
	L	<1	<1	2.7
	P	-	-	15.6
Kedgwick River	1	<1	<1	<1
	2	<1	<1	<1
	3	1.6	1.7	4.7
	15	1.3	<1	2.1
	31	<1	1.9	1.2
Belle Kedgwick River	6	<1	<1	2.8
North Kedgwick River	5	<1	<1	2.1
	8	<1	<1	3.0
South Kedgwick River	7	<1	<1	1.2
	14	<1	<1	1.4
Gounamitz River	9	<1	<1	<1
	11	<1	<1	<1
	12	<1	<1	<1
	13	<1	<1	3.0
North Gounamitz River	23	1.8	1.6	17.7
Five Fingers Brook	19	<1	1.9	4.7
	32	<1	<1	2.2
Jardine Brook	20	<1	<1	<1
Little Main Restigouche River	21	<1	<1	1.1
	22	<1	<1	<1
	30	<1	<1	<1
	35	<1	<1	<1
	36	<1	<1	<1
Christopher Brook	33	1.0	<1	3.5
Falls Brook	17	-	-	4.8
Tracy Brook	25	<1	-	4.9
Hailes Brook	38	-	1.6	2.7
	39	-	4.9	7.6
	40	-	13.6	53.3
Overall mean		<1	1.1	3.6
Total number of estimates		40	42	45

TABLE 5. Calculated densities of dace, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m^2 1979	1980	1981
Main Restigouche River	26	4.5	2.9	< 1
	27	2.4	1.5	3.7
	28	30.4	1.5	3.2
	29	9.5	11.5	1.3
	34	9.5	17.8	< 1
	37	5.3	4.1	< 1
Upsalquitch River	A	12.8	2.0	< 1
	B	1.6	1.4	2.8
	1B	< 1	< 1	< 1
	D	< 1	5.7	5.6
	E	9.2	34.8	10.6
	G	6.1	17.5	5.2
	H	14.5	103.9	15.3
	K	49.0	39.8	15.8
	L	2.4	< 1	2.8
	P	-	-	23.9
Kedgwick River	1	< 1	1.4	2.4
	2	< 1	3.2	2.4
	3	3.7	16.1	14.2
	15	< 1	< 1	< 1
	31	14.0	74.0	51.6
Belle Kedgwick River	6	< 1	< 1	< 1
North Kedgwick River	5	2.8	3.8	2.2
	8	< 1	< 1	< 1
South Kedgwick River	7	< 1	< 1	< 1
	14	< 1	< 1	< 1
Gounamitz River	9	< 1	< 1	4.5
	11	< 1	< 1	< 1
	12	< 1	< 1	< 1
	13	< 1	< 1	< 1
North Gounamitz River	23	< 1	< 1	< 1
Five Fingers Brook	19	< 1	2.3	< 1
	32	1.4	7.8	< 1
Jardine Brook	20	< 1	7.6	< 1
Little Main Restigouche River	21	4.0	6.5	< 1
	22	1.8	< 1	< 1
	30	< 1	1.6	13.0
	35	< 1	< 1	< 1
	36	< 1	< 1	10.3
Christopher Brook	33	0.0	0.0	0.0
Falls Brook	17	-	-	0.0
Tracy Brook	25	0.0	-	0.0
Hailes Brook	38	-	9.6	2.4
	39	-	2.4	< 1
	40	-	1.3	< 1
Overall mean		4.9	9.3	4.5
Total number of estimates		40	42	45

TABLE 6. Calculated densities of chub, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m² 1979	1980	1981
Main Restigouche River	26	<1	6.5	<1
	27	<1	<1	<1
	28	<1	<1	<1
	29	<1	<1	<1
	34	<1	<1	<1
	37	<1	<1	<1
Upsalquitch River	A	<1	<1	<1
	B	<1	<1	<1
	1B	<1	<1	<1
	D	<1	<1	<1
	E	<1	<1	<1
	G	<1	<1	<1
	H	<1	<1	<1
	K	<1	<1	<1
	L	<1	<1	<1
	P	-	-	<1
Kedgwick River	1	0.0	0.0	0.0
	2	0.0	0.0	0.0
	3	0.0	0.0	0.0
	15	0.0	0.0	0.0
	31	0.0	0.0	0.0
Belle Kedgwick River	6	0.0	0.0	0.0
North Kedgwick River	5	0.0	0.0	0.0
	8	0.0	0.0	0.0
South Kedgwick River	7	0.0	0.0	0.0
	14	0.0	0.0	0.0
Gounamitz River	9	0.0	0.0	0.0
	11	0.0	0.0	0.0
	12	0.0	0.0	0.0
	13	0.0	0.0	0.0
North Gounamitz River	23	0.0	0.0	0.0
Five Fingers Brook	19	0.0	0.0	0.0
	32	0.0	0.0	0.0
Jardine Brook	20	0.0	0.0	0.0
Little Main Restigouche River	21	0.0	0.0	0.0
	22	0.0	0.0	0.0
	30	0.0	0.0	0.0
	35	0.0	0.0	0.0
	36	0.0	0.0	0.0
Christopher Brook	33	0.0	0.0	0.0
Falls Brook	17	-	-	0.0
Tracy Brook	25	0.0	-	0.0
Hailes Brook	38	-	0.0	0.0
	39	-	0.0	0.0
	40	-	0.0	0.0
Overall mean		< 1	< 1	< 1
Total number of estimates		40	42	45

TABLE 7. Calculated densities of shiner, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m²		
		1979	1980	1981
Main Restigouche River	26	< 1	< 1	< 1
	27	< 1	< 1	< 1
	28	< 1	< 1	< 1
	29	< 1	< 1	< 1
	34	< 1	< 1	< 1
	37	< 1	< 1	< 1
Upsalquitch River	A	< 1	< 1	< 1
	B	< 1	< 1	< 1
	1B	< 1	< 1	< 1
	D	< 1	< 1	< 1
	E	< 1	< 1	< 1
	G	< 1	< 1	< 1
	H	< 1	< 1	< 1
	K	< 1	< 1	< 1
	L	< 1	< 1	< 1
	P	-	-	< 1
Kedgwick River	1	< 1	< 1	< 1
	2	< 1	< 1	< 1
	3	< 1	< 1	< 1
	15	< 1	< 1	< 1
	31	< 1	< 1	< 1
Belle Kedgwick River	6	< 1	< 1	< 1
North Kedgwick River	5	< 1	< 1	< 1
	8	< 1	< 1	< 1
South Kedgwick River	7	< 1	< 1	< 1
	14	< 1	< 1	< 1
Gounamitz River	9	0.0	0.0	0.0
	11	0.0	0.0	0.0
	12	0.0	0.0	0.0
	13	0.0	0.0	0.0
North Gounamitz River	23	0.0	0.0	0.0
Five Fingers Brook	19	0.0	0.0	0.0
	32	0.0	0.0	0.0
Jardine Brook	20	0.0	0.0	0.0
Little Main Restigouche River	21	0.0	0.0	0.0
	22	0.0	0.0	0.0
	30	0.0	0.0	0.0
	35	0.0	0.0	0.0
	36	0.0	0.0	0.0
Christopher Brook	33	0.0	0.0	0.0
Falls Brook	17	-	-	0.0
Tracy Brook	25	0.0	-	0.0
Hailes Brook	38	-	0.0	0.0
	39	-	0.0	0.0
	40	-	0.0	0.0
Overall mean		< 1	< 1	< 1
Total number of estimates		40	42	45

TABLE 8. Calculated densities of sucker, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m^2 1979	1980	1981
Main Restigouche River	26	< 1	< 1	< 1
	27	< 1	< 1	< 1
	28	< 1	3.2	< 1
	29	< 1	1.1	< 1
	34	< 1	< 1	< 1
	37	< 1	< 1	< 1
Upsalquitch River	A	< 1	< 1	< 1
	B	< 1	< 1	< 1
	1B	< 1	< 1	< 1
	D	< 1	< 1	< 1
	E	< 1	1.1	< 1
	G	2.0	< 1	< 1
	H	< 1	< 1	< 1
	K	< 1	< 1	< 1
	L	< 1	< 1	< 1
	P	-	-	< 1
Kedgwick River	1	< 1	< 1	< 1
	2	< 1	< 1	< 1
	3	< 1	< 1	< 1
	15	< 1	< 1	< 1
	31	< 1	< 1	< 1
Belle Kedgwick River	6	< 1	< 1	< 1
North Kedgwick River	5	< 1	< 1	< 1
	8	< 1	< 1	< 1
South Kedgwick River	7	< 1	< 1	< 1
	14	< 1	< 1	< 1
Gounamitz River	9	0.0	0.0	0.0
	11	0.0	0.0	0.0
	12	0.0	0.0	0.0
	13	0.0	0.0	0.0
North Gounamitz River	23	0.0	0.0	0.0
Five Fingers Brook	19	< 1	< 1	< 1
	32	< 1	< 1	< 1
Jardine Brook	20	0.0	0.0	0.0
Little Main Restigouche River	21	< 1	< 1	< 1
	22	< 1	< 1	< 1
	30	< 1	< 1	< 1
	35	< 1	< 1	< 1
	36	< 1	< 1	< 1
Christopher Brook	33	0.0	0.0	0.0
Falls Brook	17	-	-	0.0
Tracy Brook	25	0.0	-	0.0
Hailes Brook	38	-	0.0	0.0
	39	-	0.0	0.0
	40	-	0.0	0.0
Overall mean		< 1	< 1	< 1
Total number of estimates		40	42	45

TABLE 9. Calculated densities of stickleback, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m²		
		1979	1980	1981
Main Restigouche River	26	<1	<1	<1
	27	<1	<1	<1
	28	<1	<1	<1
	29	<1	<1	<1
	34	<1	<1	<1
	37	<1	<1	<1
Upsalquitch River	A	<1	<1	<1
	B	<1	<1	<1
	1B	<1	<1	<1
	D	<1	<1	<1
	E	<1	<1	<1
	G	<1	<1	1.6
	H	<1	<1	<1
	K	<1	<1	<1
	L	<1	<1	<1
	P	-	-	<1
Kedgwick River	1	<1	<1	<1
	2	<1	<1	<1
	3	<1	<1	<1
	15	<1	<1	<1
	31	<1	<1	<1
Belle Kedgwick River	6	<1	<1	<1
North Kedgwick River	5	<1	<1	<1
	8	<1	<1	<1
South Kedgwick River	7	<1	<1	<1
	14	<1	<1	<1
Gounamitz River	9	0.0	0.0	0.0
	11	0.0	0.0	0.0
	12	0.0	0.0	0.0
	13	0.0	0.0	0.0
North Gounamitz River	23	0.0	0.0	0.0
Five Fingers Brook	19	<1	<1	<1
	32	<1	<1	<1
Jardine Brook	20	0.0	0.0	0.0
Little Main Restigouche River	21	<1	<1	<1
	22	<1	<1	<1
	30	<1	<1	<1
	35	<1	<1	<1
	36	<1	<1	<1
Christopher Brook	33	0.0	0.0	0.0
Falls Brook	17	-	-	0.0
Tracy Brook	25	0.0	-	0.0
Hailes Brook	38	-	<1	<1
	39	-	<1	<1
	40	-	<1	<1
Overall mean		<1	<1	<1
Total number of estimates		40	42	45

TABLE 10. Calculated densities of sculpin, as determined by electroseining in the Restigouche River system, 1979-81.

River or stream	Site number	Density per 100 m² 1979	1980	1981
Main Restigouche River	26	33.4	1.9	<1
	27	3.9	<1	4.8
	28	1.0	<1	7.8
	29	7.5	<1	<1
	34	1.7	1.3	1.5
	37	2.3	2.3	<1
Upsalquitch River	A	<1	5.4	6.0
	B	9.6	2.8	4.0
	1B	<1	<1	<1
	D	7.1	<1	3.4
	E	3.9	4.0	4.2
	G	1.8	10.7	2.6
	H	1.7	<1	<1
	K	1.7	6.8	38.1
	L	10.6	<1	6.2
	P	-	-	72.2
Kedgwick River	1	5.7	12.5	10.2
	2	4.3	2.7	10.5
	3	11.3	11.2	11.0
	15	9.9	3.2	17.7
	31	8.7	12.7	14.7
Belle Kedgwick River	6	28.0	60.1	48.8
North Kedgwick River	5	23.3	12.3	18.5
	8	14.2	52.9	42.8
South Kedgwick River	7	20.0	50.3	15.7
	14	38.4	19.7	25.2
Gounamitz River	9	30.3	22.1	9.8
	11	71.7	54.5	25.4
	12	88.5	100.0	25.0
	13	46.4	74.2	6.5
North Gounamitz River	23	52.1	83.3	45.2
Five Fingers Brook	19	42.7	12.1	30.1
	32	9.3	4.2	52.7
Jardine Brook	20	5.8	1.5	12.0
Little Main Restigouche River	21	5.4	12.4	10.1
	22	25.3	85.5	3.8
	30	1.4	<1	3.5
	35	19.5	14.4	16.8
	36	57.8	87.6	9.1
Christopher Brook	33	30.3	46.5	12.7
Falls Brook	17	-	-	40.3
	18	-	-	-
Tracy Brook	25	31.2	-	55.5
Hailes Brook	38	-	67.7	90.6
	39	-	117.8	37.0
	40	-	20.4	26.3
Overall mean		19.2	25.7	19.6
Total number of estimates		40	42	45

TABLE 11. A summary of miscellaneous data collected on sites of the Restigouche River system electroseined in 1979. (Areas calculated to nearest m^2.)

Stream	Site number	Area (m^2)	Average depth (cm)	Water temp. (°C)
Main Restigouche River	26	384	12.7	18.0
	27	400	42.3	-
	28	400	12.8	19.0
	29	400	10.7	19.0
	34	308	33.2	20.0
	37	275	15.0	16.0
Upsalquitch River	A	325	22.9	19.0
	B	320	33.3	10.0
	1B	330	20.6	15.0
	D	430	18.0	15.0
	E	363	18.8	15.0
	G	400	26.4	10.0
	H	360	17.8	12.0
	K	298	16.0	13.0
	L	449	30.7	10.0
	P	-	-	-
Kedgwick River	1	420	26.7	18.0
	2	350	38.1	20.0
	3	366	29.0	16.0
	15	338	35.2	-
	31	446	30.3	20.0
Belle Kedgwick River	6	360	22.5	15.0
North Kedgwick River	5	311	17.4	22.0
	8	417	35.2	14.0
South Kedgwick River	7	408	28.9	18.0
	14	418	28.1	-
Gounamitz River	9	346	42.9	-
	11	398	27.0	12.0
	12	361	32.5	11.0
	13	216	17.8	13.0
North Gounamitz River	23	226	17.4	12.0
Five Fingers Brook	19	378	18.1	17.0
	32	368	31.0	20.0
Jardine Brook	20	416	27.6	20.0
Little Main Restigouche River	21	368	16.8	17.0
	22	280	23.2	12.0
	30	440	37.2	19.0
	35	304	22.6	15.0
	36	247	28.8	19.0
Christopher Brook	33	299	24.1	10.0
Falls Brook	17	-	-	-
Tracy Brook	25	378	24.7	10.0
Hailes Brook	38	-	-	-
	39	-	-	-
	40	-	-	-
Overall mean		357	25.4	15.6
Total number of estimates		40	40	36

TABLE 12. A summary of miscellaneous data collected on sites of the Restigouche River system electroseined in 1980. (Areas calculated to nearest m^2.)

Stream	Site number	Area (m^2)	Average depth (cm)	Water temp. (°C)
Main Restigouche River	26	319	35.7	12.0
	27	270	38.4	20.0
	28	378	43.3	16.0
	29	400	27.0	20.0
	34	308	34.1	20.0
	37	275	39.2	20.0
Upsalquitch River	A	240	27.1	12.0
	B	300	36.1	18.0
	1B	330	19.3	18.0
	D	468	33.3	20.0
	E	363	21.4	15.0
	G	400	38.8	20.0
	H	360	18.4	17.0
	K	300	28.7	20.0
	L	600	38.8	20.0
	P	-	-	-
Kedgwick River	1	360	39.7	20.0
	2	350	38.2	20.0
	3	366	17.8	20.0
	15	419	39.7	18.0
	31	446	21.1	22.0
Belle Kedgwick River	6	320	37.7	10.0
North Kedgwick River	5	311	18.1	12.0
	8	417	27.8	10.0
South Kedgwick River	7	408	36.3	12.0
	14	429	29.8	12.0
Gounamitz River	9	340	27.2	18.0
	11	432	28.6	20.0
	12	357	22.8	20.0
	13	224	24.7	15.0
North Gounamitz River	23	264	20.3	12.0
Five Fingers Brook	19	324	30.9	14.0
	32	388	29.3	12.0
Jardine Brook	20	416	31.6	17.0
Little Main Restigouche River	21	322	34.3	15.0
	22	232	35.1	16.0
	30	440	34.7	20.0
	35	312	39.9	15.0
	36	389	37.1	20.0
Christopher Brook	33	299	26.2	16.0
Falls Brook	17	-	-	-
Tracy Brook	25	-	-	-
Hailes Brook	38	257	23.3	15.0
	39	270	35.1	10.0
	4C	225	29.7	15.0
Overall mean		348	30.9	16.5
Total number of estimates		42	42	42

TABLE 13. A summary of miscellaneous data collected on sites of the Restigouche River system electroseined in 1981. (Areas calculated to nearest m^2.)

Stream	Site number	Area (m^2)	Average depth (cm)	Water temp. (°C)
Main Restigouche River	26	330	32.4	19.0
	27	400	27.6	12.0
	28	400	31.4	17.0
	29	400	16.2	19.0
	34	336	33.1	12.0
	37	275	22.0	18.0
Upsalquitch River	A	325	32.4	17.0
	B	360	27.7	10.0
	1B	330	21.9	12.0
	D	400	33.7	10.0
	E	363	17.3	12.0
	G	400	40.0	12.0
	H	360	20.0	18.0
	K	308	18.9	15.0
	L	483	24.3	15.0
	P	300	17.8	12.0
Kedgwick River	1	350	34.9	11.0
	2	350	33.6	17.0
	3	315	32.6	12.0
	15	378	41.6	10.0
	31	495	23.2	15.0
Belle Kedgwick River	6	405	28.8	12.0
North Kedgwick River	5	351	23.7	12.0
	8	408	35.8	10.0
South Kedgwick River	7	408	41.2	10.0
	14	400	33.2	12.0
Gounamitz River	9	336	48.4	12.0
	11	689	31.7	11.0
	12	406	38.9	11.0
	13	279	42.6	10.0
North Gounamitz River	23	391	29.1	10.0
Five Fingers Brook	19	297	20.9	20.0
	32	450	30.3	12.0
Jardine Brook	20	448	32.6	16.0
Little Main Restigouche River	21	368	20.9	18.0
	22	280	27.4	20.0
	30	468	36.3	15.0
	35	338	25.0	10.0
	36	300	32.2	17.0
Christopher Brook	33	297	44.1	10.0
Falls Brook	17	338	31.4	13.0
Tracy Brook	25	338	24.8	12.0
Hailes Brook	38	403	27.3	11.0
	39	285	33.0	12.0
	40	175	20.0	18.0
Overall mean		367	29.8	13.5
Total number of estimates		45	45	45

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POOR

QUALITY

ORIGINAL